directing a coherent incident radiation beam at a first optical component;

transmitting the coherent incident radiation beam through the first optical component forming a transmitted beam, to a second optical component having a hologram with variable diffraction efficiency recorded therein; and

A2 cont.

diffracting the transmitted beam via the hologram forming a diffracted radiation beam, wherein the coherent incident radiation beam and the diffracted beam interfere within the first optical component to form a replica of the hologram therein.

SUB B3

22. A method for duplicating a hologram comprising:

directing a coherent radiation beam at a first optical component having a hologram with variable diffraction efficiency recorded therein;

diffracting a first portion of the coherent radiation beam via the hologram forming a diffracted radiation beam;

A3

transmitting a second portion of the coherent radiation beam through the first optical component forming a transmitted beam; and

interfering the diffracted radiation beam with the transmitted radiation beam within a second optical component to form a replica of the hologram therein.

SUB B4

32. A method for contact recording at least one hologram comprising:

arranging at least a first master hologram having variable diffraction efficiency and at least a first holographic blank in optical contact to form a master/blank assembly;

A4

exposing the master/blank assembly to a pre-recording beam; and

exposing the master/blank assembly to a recording beam, wherein the master/blank assembly remains optically contacted throughout each exposure.

46. A method for contact recording at least one hologram comprising:

arranging at least a first master hologram having variable diffraction efficiency and at least first holographic blank in optical contact to form a master/blank assembly;

exposing the master/blank assembly to a recording beam; and

exposing the master/blank assembly to a post-recording beam, wherein the master/blank assembly remains optically contacted throughout each exposure.